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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,370	11/19/2001	Seishi Ikami	Q67217	8352

7590 11/25/2003

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EXAMINER

MORAN, TIMOTHY J

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,370

Applicant(s)

IKAMI, SEISHI

Examiner

Timothy J. Moran

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 3, the term "at least of which" is unclear. For this action the term "at least of which" will be understood to mean --at least some of which--.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 9-12, 17, 19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Zarling, U. S. Patent No. 5,891,656. Regarding claims 1 and 7, Zarling describes an image producing data method comprising irradiating an image carrier (fig. 28) with a stimulating ray (col. 5, lines 24-41), stopping the irradiation and detecting residual fluorescence (col. 33, lines 6-14) using a two dimensional sensor (CCD, col. 32, line 63-col. 33, line 4).

Regarding claim 2, the method of Zarling is understood to be repeatable.

Regarding claims 3 and 4, Zarling describes the use of a shutter and a chopper (col. 33, lines 14-20).

Regarding claim 5, Zarling teaches the use of a filter for cutting light having a wavelength of the stimulating ray (col. 6, lines 3-5).

Regarding claim 9, Zarling teaches the use of a micro-titer plate (col. 39, lines 26-27).

Regarding claims 10 and 12, Zarling describes an apparatus comprising a stimulating ray source (col. 31, line 66-col. 32, line 1), an image carrier including two-dimensionally distributed specimen spots (fig. 28), a two-dimensional sensor (CCD, col. 32, line 63-col. 33, line 4), and means for detecting residual fluorescence emission (col. 33, lines 6-14).

Regarding claim 11, the steps of Zarling are understood to be repeatable.

Regarding claim 17, Zarling teaches the use of a filter for cutting light having a wavelength of the stimulating ray (col. 6, lines 3-5).

Regarding claim 19, Zarling teaches the use of a CCD camera (col. 32, line 63- col. 33, line 4).

Regarding claim 21, Zarling teaches the use of a micro-titer plate (col. 39, lines 26-27).

Claims 1-5, 10-13, and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Pollak, U. S. Patent No. 4,954,714. Regarding claims 1 and 7, Pollak describes an image producing data method comprising irradiating an image carrier (col. 4, lines 56-62) with a stimulating ray (20, col. 4, lines 59-68), stopping the irradiation and detecting residual fluorescence (col. 6, lines 14-19) using a two dimensional sensor (camera 34, col. 5, lines 15-17).

Regarding claim 2, the method of Pollak is understood to be repeatable.

Regarding claims 3 and 4, Pollak describes the use of a shutter and a chopper (abstract).

Regarding claim 5, Pollak teaches the use of a filter for cutting light having a wavelength of the stimulating ray (col. 4, lines 19-21).

Regarding claims 10 and 12, Pollak describes an apparatus comprising a stimulating ray source (20, col. 4, lines 59-68), an image carrier including two-dimensionally distributed specimen spots (col. 4, lines 56-62), a two-dimensional sensor

(camera 34, col. 5, lines 15-17), and means for detecting residual fluorescence emission (col. 6, lines 14-19).

Regarding claim 11, the steps of Pollak are understood to be repeatable.

Regarding claims 13 and 16, Pollak teaches the use of a chopper with four openings (152, col. 9, lines 38-39) and means to cause the detector to be covered when the stimulating ray is covered, and to cause the detector to be uncovered when the stimulating ray is covered (col. 9, line 36-col. 10, line 22).

Regarding claim 17, Pollak teaches the use of a filter for cutting light having a wavelength of the stimulating ray (col. 4, lines 19-21).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarling as applied to claims 1 and 10 above, and further in view of Kawasaki, U. S. Patent No. 6,040,940. Zarling does not teach the use of a Fresnel lens. However, the use of Fresnel lenses is well known in the art of fluorescence detection (see Kawasaki, col. 1, lines 59-62). Therefore it would have been obvious to one of ordinary skill in the art to use a Fresnel lens in the invention of Zarling to optimize light detection efficiency.

Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarling as applied to claims 7 and 19 above, and further in view of Cabib, U. S. Patent No. 5,936,731. Zarling does not teach the use of a cooled CCD camera. However, the use of cooled CCD cameras is well known in the art of fluorescence detection (see Cabib, col. 39, lines 61-64). Therefore it would have been obvious to one of ordinary skill in the art to use a cooled CCD camera in the invention of Zarling to optimize light detection efficiency.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollak as applied to claim 13 above, and further in view of Anderson, U. S. Patent No. 5,430,813. Regarding claim 14, Pollak does not teach the use of a light guide. However, the use of choppers with light guides is well known in the art of fluorescence detection (see Anderson, fig. 5). Therefore it would have been obvious to one of ordinary skill in the art to use a light guide in the invention of Pollak to optimize light transmission efficiency.

Regarding claim 15, the use of bundles of optical fibers is well known in the art of fiber optics as a way to increase light transmission. Therefore it would have been obvious to one of ordinary skill in the art to provide for an optical fiber bundle in the invention of Pollak for the advantage of increasing light transmission.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Moran whose telephone number is 703-305-0849. The examiner can normally be reached on M-F 8:30-5:00.

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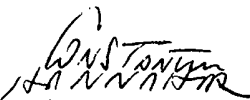
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

T.M.

TM
November 17, 2003


CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878